



MAYOR AND COUNCIL WORKSESSION

NO. 5

DEPT.: Public Works / Transportation

DATE: September 15, 2004

CONTACT: Larry Marcus

SUBJECT FOR DISCUSSION: Progress update on Town Center Roadway Capacity Study.

ORDER OF DISCUSSION:

1. Overview of Study
2. Summary of Land Use Assumptions
3. Progress Report on Study

GENERAL DIRECTION SOUGHT AND SPECIFIC QUESTIONS TO BE ANSWERED:

Prior to the presentation of the final report, staff is providing a progress update.

Background:

The City hired a consultant to analyze potential traffic impacts of future development and redevelopment in the Town Center. The consultant analyzed 25 intersections in the Town Center and along key access routes to the Town Center under five scenarios. The emphasis of the study was the analyses of the traffic impacts generated by three potential future year development scenarios while accounting for both existing and background conditions.

Staff has prepared a progress update.

LIST OF ATTACHMENTS:

Progress Update Memorandum to the Acting City Manager dated September 14, 2004.



City of Rockville

MEMORANDUM

September 13, 2004

TO: Catherine Tuck Parrish, Acting City Manager

FROM: Larry Marcus, Chief of Traffic and Transportation Division *LM*
Jim Wasilak, Chief of Long Range Planning *JW*

SUBJECT: Town Center Roadway Capacity Study

With the potential for further development and redevelopment in Town Center, it is important that the City of Rockville understand the cumulative impacts on City infrastructure. Infrastructure needs are typically evaluated at specific times in the planning and development process. For example, the sewer capacity in the Cabin John watershed, which serves most of Town Center, has been evaluated in recent years. This memorandum focuses on the transportation infrastructure in Town Center, which has been a continuing concern.

To make decisions about future growth, the traffic impacts on the downtown core and on nearby residential neighborhoods must be identified, evaluated and considered. The overall downtown planning effort will focus on the promotion of high quality, mixed-use development with an attractive pedestrian environment and adequate traffic circulation.

In order to study the transportation impacts on development in the Town Center, the City has hired a consultant to examine roadway capacity in Town Center. The consultant analyzed 25 intersections in the Town Center and along key access routes to the Town Center under 5 scenarios; existing, background, and 3 development scenarios. The emphasis of the study was the analyses of the traffic impacts generated by three potential future year development scenarios, while accounting for both existing and background conditions. The aim of the study is to understand existing, background and future conditions, identify failures in the network and identify potential solutions.

Existing and Background Conditions

In May 2003, City staff completed a comprehensive traffic study that summarized existing and future traffic conditions. Data collected for this study was used as the basis for the Town Center

Roadway Capacity Study. Background conditions account for existing and approved but unbuilt development, as well as projected growth in pass-through traffic from other areas both inside and outside the City.

Future Development Scenarios and Assumptions

The three Town Center development potential scenarios considered all parcels within the Town Center Planning Area with development or redevelopment potential. All three scenarios include three categories of projects: 1) pipeline projects, or projects that have already received approval but are not yet built; 2) pending projects, or projects that have been submitted to the City for review that have not yet been approved; and 3) potential redevelopment projects on parcels that have potential for redevelopment. For all improved properties, the existing development was factored out to result in a net gain of development. Given that existing zoning permits a wide range of uses, development assumptions were made to include ground floor retail and either office or residential in upper stories.

All scenarios consider approved pipeline projects as they are currently approved. This includes Rockville Center, Rockville Metro Plaza and the redevelopment of the Bank of America building, among others (see table below).

Pipeline Development: Rockville Town Center

Project	Office (sf)	Retail (sf)	Other (sf)	Multifamily residential
Town Square	6,600	145,000	14,000	658 du
Rockville Regional Library	34,174	3,500	64,848	0
21 Church Street	93,450	0	0	0
Rockville Metro Plaza	374,000	21,000	0	0
Rockville Center	1,252,211	103,235	0	117 du
The Westchester Apartments	0	0	0	222 du
Sandy Spring Bank	140,044	18,394	0	0
Bank of America	0	6,549	0	325 du
Total	1,900,479	297,678	78,848	1,322 du

All scenarios also included the pending project in Town Center, the Archstone First Street apartments (192 units). Note that the amendment to the Rockville Center project, which would substitute 299 multifamily units for 363,000 square feet of office space, was considered a likely scenario rather than a pending development.

The potential redevelopment portion of the scenarios considered all parcels with at least some development potential, while excluding those which will likely not redevelop (i.e., The Americana Center, The Victoria, etc.) and those with pending or proposed development approvals. Note that properties in the Phase II Town Center area were assumed to be developed per the recommendations in the draft Plan in Scenarios 1 and 2, with Scenario 3 including maximum development under existing zoning.

Scenario 1

Scenario 1 included all of the currently approved pipeline development, as well as pending development as proposed. Note that the Rockville Center amendment was not included as a pending development in this scenario. The project was included as currently approved. Potential redevelopment parcels were added with a “likely scenario” for each parcel, based on recent development trends, as opposed to maximum development under the existing zoning.

Scenario 2

Scenario 2 can be considered the likely scenario of development for all parcels. It includes some modifications to multiple phase developments such as Rockville Center (the amendment as proposed) and Rockville Metro Plaza, which are potential conversions of office space to residential. All other parcels are included as likely scenarios, similar to Scenario 1.

Scenario 3

Scenario 3 included pipeline and pending development, as well as the maximum amount of development permitted under current zoning on other parcels. General land use was assigned per the Town Center Master Plan, in terms of office or residential as the primary use on parcels.

Scope of the Study:

The major milestones for the study include:

1. Data collection and level of service calculations (complete)
2. Identification of impacts (complete)
3. Identification of potential improvements
4. Feasibility of improvements
5. Determination of which improvements are desirable

The following 25 intersections were studied:

1. Route 28 and Laird Street
2. Route 28 and Great Falls Road
3. Great Falls Road and Maryland Avenue

4. Route 28 and Washington Street
5. Route 28 and Maryland Avenue
6. Route 28 and Monroe Street
7. Route 28 and Nelson Street
8. Route 28 and Rockville Pike
9. Route 28 and First Street
10. First Street and Baltimore Road
11. Rockville Pike and First Street
12. Rockville Pike and Richard Montgomery Drive
13. Rockville Pike and Church Street
14. Rockville Pike and Middle Lane
15. Rockville Pike and Mannakee Street
16. Rockville Pike and Beall Avenue
17. N. Stonestreet Avenue and Park Road
18. S. Stonestreet Avenue and Park Road
19. N. Washington Street and E. Montgomery Avenue
20. N. Washington Street and Middle Lane
21. N. Washington Street and Beall Avenue
22. N. Washington Street and Martins Lane
23. N. Washington Street and Rockville Pike
24. Maryland Avenue and Middle Lane
25. Maryland Avenue and Beall Avenue

Progress on Roadway Capacity Analysis:

Data gathered includes turning movement count data, lane configurations and critical lane volume (CLV) analyses at the 25 intersections in the study area. Congestion levels have been identified and summarized by the consultant for the background, existing and 3 development scenarios including levels of service (LOS) and failing movements.

Staff is reviewing the congestion level data and working with the consultant to identify specific impacts (specific failing movements at intersections) and potential solutions.

Once potential solutions are identified, feasibility studies, including ROW acquisition, cost estimates and jurisdictional coordination will be conducted. This portion of the analysis will take time in order to conduct concept planning and revised traffic calculations, and basic cost estimates in order to have the necessary information for the Mayor and Council to determine their plan of action.

The consultant is finalizing a computer simulation model that will evaluate the downtown street system. Simulation techniques provide a truer estimate of traffic performance and can inform us about vehicle travel times, average speeds, delays, queue lengths and other measures of

effectiveness. This information will provide staff an additional level of detail in identifying impacts and potential solutions.

At a minimum, staff will need to do preliminary survey work, basic concept design, confirm land records and rights-of-way, coordinate with other jurisdictions for each of the intersections and corridors where improvements are recommended. This will involve a lot of staff time and may take several months to complete.

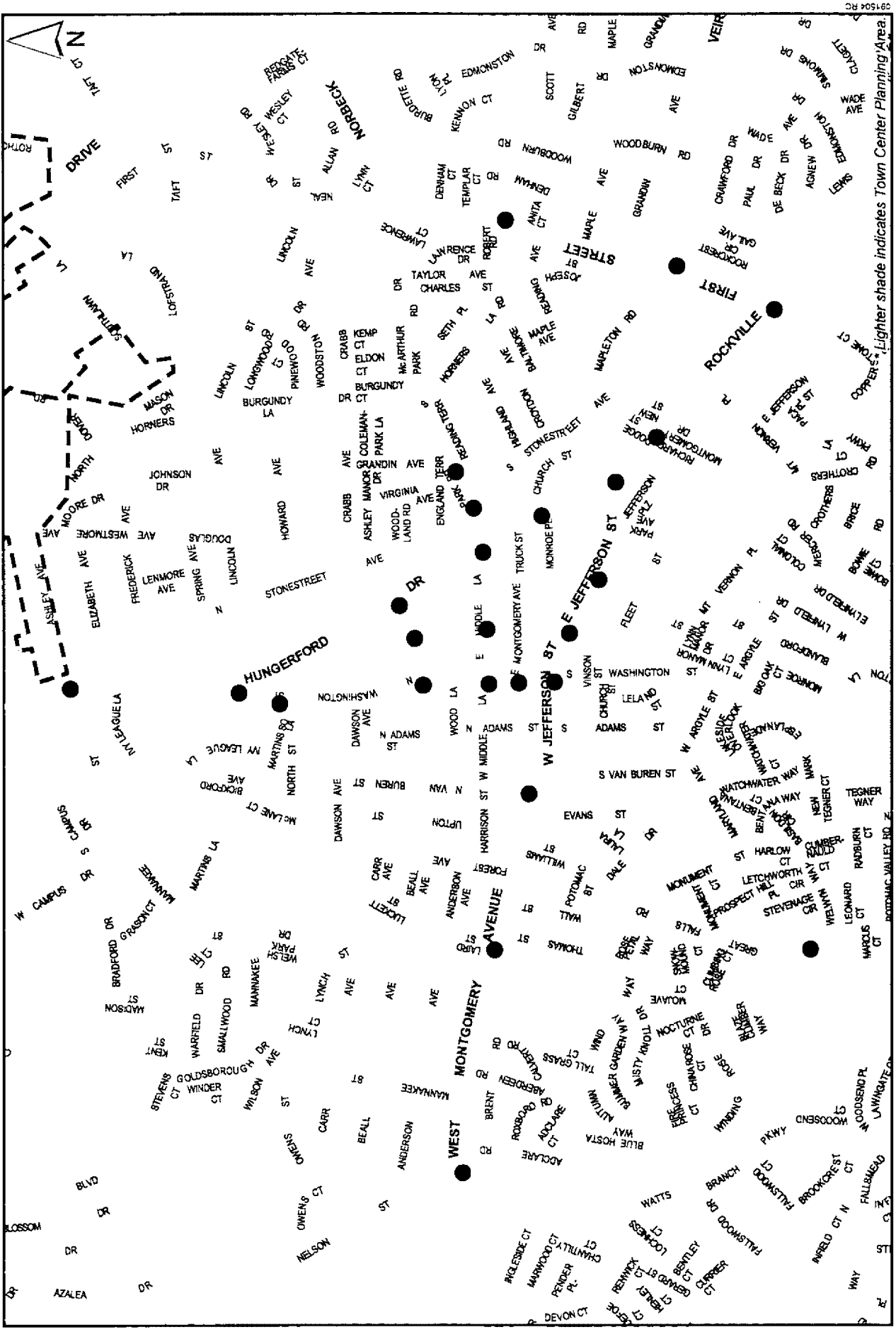
After all analyses have been finalized, staff will present the Mayor and Council with recommendations in order for them to determine an action plan for implementing recommendations from the study.

Attachments

1. Town Center Development Potential Scenarios
2. Map of Study Area

Town Center Development Scenario summary

	Proposed development						Existing development					
	Office	Retail	Industrial	Other	MF	SFA	SFD	Office	Retail	Industrial	Other	
Scenario 1 total	3,064,479	680,629	114,000	424,848	2,180	333	38	-295,688	-248,328	-305,563	-38,000	
Scenario 2 total	2,195,488	682,856	114,000	424,848	2,514	333	38	-170,413	-234,339	-308,563	-38,000	
Scenario 3 total	3,287,374	703,856	114,000	229,848	3,122	489	38	-295,688	-248,328	-308,563	-38,000	



TOWN CENTER CAPACITY STUDY

25 INTERSECTIONS AND STUDY AREA

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